

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A polyurethane (A) comprising ~~as-synthesis~~

~~components~~

- a) at least one organic diisocyanate or polyisocyanate,
- b) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,
- c) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
- d) if desired, at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one actively dispersing group,
- e) if desired, at least one compound ~~containing~~ comprising at least two isocyanate-reactive groups, and
- f) if desired, compounds other than a) to d) ~~containing~~ comprising at least one isocyanate-reactive group, the allophanate fraction being 5 to 65 mol% based on the lowest molecular weight allophanate molecule.

Claim 2 (Currently Amended): A polyurethane (A) comprising ~~as-synthesis~~

~~components~~

- a) at least one organic diisocyanate or polyisocyanate,
- b) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,

- c) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
- d) 1-30 mol% of at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one actively dispersing group,
- e) if desired, at least one compound ~~containing~~ comprising at least two isocyanate-reactive groups, and
- f) if desired, compounds other than a) to d) ~~containing~~ comprising at least one isocyanate-reactive group.

Claim 3 (Currently Amended): A polyurethane (A) comprising ~~as-synthesis~~
~~components~~

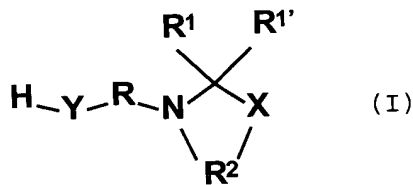
- a) at least one (cyclo) aliphatic organic diisocyanate or polyisocyanate,
- b) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one free-radically polymerizable unsaturated group and/or cationically polymerizable group,
- c) at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one capped amino group and having a molecular weight below 1000 g/mol,
- d) if desired, at least one compound ~~containing~~ comprising at least one isocyanate-reactive group and at least one actively dispersing group,
- e) no compound ~~containing~~ comprising at least two isocyanate-reactive groups,
and
- f) if desired, compounds other than a) to d) ~~containing~~ comprising at least one isocyanate-reactive group.

Claim 4 (Currently Amended): The polyurethane (A) according to claim 1, ~~any of~~
~~claims 1 to 3~~, wherein synthesis component c) has a molecular weight below 750 g/mol.

Claim 5 (Currently Amended): The polyurethane according to claim 1, ~~any one of the~~
~~preceding claims~~, comprising per 100 g of compound at least 0.01 mol of unsaturated free-
radically or cationically polymerizable groups and/or at least 0.01 mol of capped amino
groups.

Claim 6 (Currently Amended): The polyurethane according to claim 1, ~~any one of the~~
~~preceding claims~~, wherein said at least one capped amino group is selected from the group
consisting of open-chain amins, cyclic amins, ketimines, aldimines, N,O-acetals, N,O-
ketals, carboxamides, sulfonamides, and amidines.

Claim 7 (Currently Amended): The polyurethane according to claim 1, ~~any one of the~~
~~preceding claims~~, wherein component c) has the formula (I)



where

R and R² independently are each a divalent organic aliphatic, cycloaliphatic or
aromatic radical ~~containing~~ comprising 2 to 20 carbon atoms which is unsubstituted or
substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or
heterocycles,

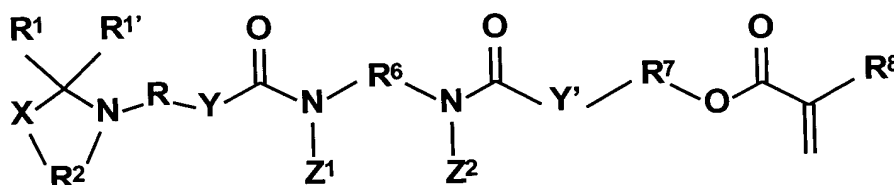
R^1 and $R^{1'}$ independently are each hydrogen, C_1 - C_{18} alkyl, C_2 - C_{18} alkyl which is uninterrupted or interrupted by one or more oxygen and/or sulfur atoms and/or by one or more substituted or unsubstituted imino groups, or are each C_6 - C_{12} aryl, C_5 - C_{12} cycloalkyl or a five- or six-membered heterocycle containing oxygen, nitrogen and/or sulfur atoms, it being possible for each of said radicals to be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

X is oxygen (-O-), unsubstituted or monosubstituted nitrogen ($-N(R^4)-$) or $>N-NR^4R^5$,

Y is oxygen (-O-), unsubstituted nitrogen ($-N(H)-$) or sulfur (-S-), and

R^4 and R^5 independently are each hydrogen or C_1 - C_4 alkyl.

Claim 8 (Currently Amended): The polyurethane according to claim 1, ~~any one of the preceding claims~~, comprising at least one of the following compounds of the formula (II)



or higher homologs thereof,

where

R , R^1 , $R^{1'}$, R^2 , X and Y are as defined in claim 7,

R and R^2 independently are each a divalent organic aliphatic, cycloaliphatic or aromatic radical comprising 2 to 20 carbon atoms which is unsubstituted or substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

R^1 and $R^{1'}$ independently are each hydrogen, C_1 - C_{18} alkyl, C_2 - C_{18} alkyl which is uninterrupted or interrupted by one or more oxygen and/or sulfur atoms and/or by one or

more substituted or unsubstituted imino groups, or are each C₆-C₁₂ aryl, C₅-C₁₂ cycloalkyl or a five- or six-membered heterocycle containing oxygen, nitrogen and/or sulfur atoms, it being possible for each of said radicals to be substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles.

X is oxygen (-O-), unsubstituted or monosubstituted nitrogen (-N(R⁴)-) or >N-NR⁴R⁵,

Y is oxygen (-O-), unsubstituted nitrogen (-N(H)-) or sulfur (-S-),

Y' can be as defined for Y but can also be different,

R⁶ and R⁷ each independently are a divalent organic aliphatic, cycloaliphatic or aromatic radical comprising 2 to 20 carbon atoms and unsubstituted or substituted by functional groups, aryl, alkyl, aryloxy, alkyloxy, halogen, heteroatoms and/or heterocycles,

R⁸ is hydrogen, methyl, ethyl or hydroxymethyl, and

Z¹ and Z² can be identical or different and independently of one another are hydrogen or -(CO)-NH-R⁶-NCO.

Claim 9 (Currently Amended): A polyurethane dispersion comprising

- (A) a polyurethane according to claim 1 ~~any one of the preceding claims~~ and ~~including synthesis comprising~~ component d) and
- (C) if desired, one or more photochemically and/or thermally activable initiators, and
- (D) if desired, further, typical coatings additives.

Claim 10 (Currently Amended): A coating composition comprising

~~either at least one said~~ polyurethane dispersion according to claim 9 ~~or at least one polyurethane (A) according to any one of claims 1 to 8 and also~~

- (C) if desired, one or more photochemically and/or thermally activable initiators,
and
(D) if desired, further, typical coatings additives.

Claim 11 (Currently Amended): A method of coating a substrate, which comprises radiation curing a substrate coated with said polyurethane as claimed in claim 1, and thermally treating said polyurethane ~~a material according to any one of the preceding claims and subjecting it to thermal treatment~~ at temperatures up to 160°C.

Claim 12 (Currently Amended): The method according to claim 11, wherein said thermally treating ~~the thermal treatment~~ takes place between 60 and 160°C.

Claim 13 (Currently Amended): The method according to claim 11, ~~either of claims 11 and 12~~, wherein the radiation curing is conducted under inert gas.

Claim 14 (Currently Amended): ~~The use of a polyurethane according to any one of claims 1 to 8 in a~~ A radiation-curable coating composition comprising said polyurethane according to claim 1.

Claim 15 (Currently Amended): ~~The use of a material according to any one of claims 1 to 10 to coat~~ A method for coating wood, metal or plastic, said method comprising coating said wood, metal, or plastic with said polyurethane according to claim 1.

Claim 16 (Currently Amended): ~~The use of a material according to any one of claims 1 to 10 in an~~ an automotive paint or automotive topcoat material comprising said polyurethane as claimed in claim 1.

Claim 17 (New): A coating composition comprising
said polyurethane (A) according to claim 1 and
(C) if desired, one or more photochemically and/or thermally activable initiators,
and
(D) if desired, further, typical coatings additives.

Claim 18 (New): A method for coating wood, metal or plastic, said method
comprising coating said wood, metal, or plastic with said polyurethane dispersion according
to claim 9.